

REMARKS

This responds to the Office Action mailed on November 2, 2004. Claims 7, 28 and 36 are amended; as a result, claims 7-11 and 26-41 are now pending in this application. Reconsideration of the claims is respectfully solicited.

§102 Rejection of the Claims

Claims 7, 9, 27, 28, 32-34, and 36-39 were rejected under 35 U.S.C. § 102(b) as being anticipated by Hiroyuki (JP 59188944). Applicant respectfully requests reconsideration of the claims based upon this amendment.

Independent claims 7, 28 and 36 include the limitation of a cavity for placement of a microelectronic die and that the cavity has a depth less than or equal to a thickness of the die. (See page 6, line 25 of the present patent application.) This limitation also appears in the claims that depend upon independent method claims 7, 28 and 36. As described below, this limitation is not found in the Hiroyuki publication cited as sole support for the rejection of the claims under 35 U.S.C. § 102(b).

In contrast to the claims of the present patent application, the Hiroyuki publication shows that the leads 13 of the semiconductor die 12 are connected to the pads 14 on the carrier with bonding wires. As shown in Figure 2 of the Hiroyuki publication, the wire bonding requires a depth of the cavity to be deeper than the thickness of the semiconductor die to allow space for the bonding. Further, the notch described in the Hiroyuki publication is on the sides of the chip carrier to allow access to the bonding pads and bond wires, not in the corners.

Applicant respectfully submits that since all of the claims of the present patent application are not found in the Hiroyuki publication, the rejection of claims 7, 9, 27, 28, 32-34, and 36-39 under 35 U.S.C. § 102(b) is not valid. Reconsideration of the claims is respectfully solicited.

First §103 Rejection of the Claims

Claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hiroyuki (JP 59188944), Applicant's submitted prior art (ASPA) in view of the specification of the invention. Claim 8 now contains the limitation of a cavity for placement of a microelectronic die and the cavity having a depth less than or equal to a thickness of the die. These limitations are not found in the combination of the Hiroyuki publication and the Applicant's specification.

Applicant respectfully submits that all of the limitations in claim 8 are not found in the combination of references relied upon in this rejection and therefore the rejection of claim 8 under 35 U.S.C. § 103(a) is not valid. Reconsideration of claim 8 is respectfully solicited.

Second §103 Rejection of the Claims

Claims 10 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hiroyuki (JP 59188944) in view of Domadia et al. (U.S. 5,949,137). Claims 10 and 30 contain the limitations of having a cavity for placement of a microelectronic die and the cavity having a depth less than or equal to a thickness of the die as found in the independent claims upon which these claims depend. These limitations are not found in the combination of the Hiroyuki publication and the Domadia et al. patent.

Applicant respectfully submits that since all of the limitations of claims 10 and 30 are not found in the combination of the Hiroyuki publication and the Domadia et al. patent, the rejection of claims 10 and 30 under 35 U.S.C. § 103(a) is not valid. Reconsideration of claims 10 and 30 is respectfully solicited.

Third §103 Rejection of the Claims

Claims 11, 26, and 31 were rejected under 35 USC § 103(a) as being unpatentable over Hiroyuki (JP 59188944) in view of Tarter et al. (U.S. 6,512,675). Claims 11, 26 and 31 contain the limitations of having a cavity for placement of a microelectronic die and the cavity having a depth less than or equal to a thickness of the die as found in the independent claims upon which these claims depend. These limitations are not found in the combination of the Hiroyuki publication and the Domadia et al. patent.

Applicant respectfully submits that since all of the limitations of claims 11, 26 and 31 are not found in the combination of the Hiroyuki publication and the Domadia et al. patent, the rejection of claims 11, 26 and 31 under 35 U.S.C. § 103(a) is not valid. Reconsideration of claims 11, 26 and 31 is respectfully solicited.

Fourth §103 Rejection of the Claims

Claim 35 was rejected under 35 USC § 103(a) as being unpatentable over Hiroyuki (JP 59188944). Claim 35 contains the limitations of having a cavity for placement of a microelectronic die and the cavity having a depth less than or equal to a thickness of the die, as found in the independent claim upon which this claim depends. These limitations are not found in the single Hiroyuki publication.

Applicant respectfully submits that since all of the limitations of claim 35 are not found in the Hiroyuki publication, the rejection of claim 35 under 35 U.S.C. § 103(a) is not valid. Reconsideration of claim 35 is respectfully solicited.

Fifth §103 Rejection of the Claims

Claims 40 and 41 were rejected under 35 USC § 103(a) as being unpatentable over Hiroyuki (JP 59188944) in view of Zuo et al. (U.S. 6,525,420). Claims 40 and 41 now contain the limitations of having a cavity for placement of a microelectronic die and the cavity having a depth less than or equal to a thickness of the die, as found in the independent claims upon which these claims depend. These limitations are not found in the combination of the Hiroyuki publication and the Zuo et al. patent.

Applicant respectfully submits that since all of the limitations of claims 10 and 30 are not found in the combination of the Hiroyuki publication and the Zuo et al. patent, the rejection of claims 40 and 41 under 35 U.S.C. § 103(a) is not valid. Reconsideration of claims 40 and 41 is respectfully solicited.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6904 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

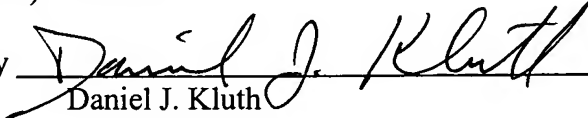
Respectfully submitted,

SABINA J. HOULE ET AL.

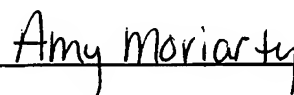
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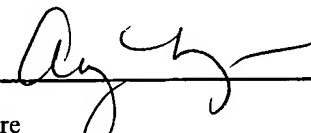
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Date Mar. 9, 2005

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